

## REMARKS

Claims 38-46, 48-49 and 51-52 were pending in the present application at the time of the Office Action.

Claim 51 stands rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite.

Claims 38-46, 48-49 and 51-52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,168,271 to Hoff ("*Hoff*") in view of GB 2250892 to Owen ("*Owen*").

Claim 51 has been canceled by the present amendment.

The present amendment adds new claims 56-66.

For at least the reasons stated below, the Applicants respectfully traverse the above rejections and submit that all pending claims are allowable.

### Rejections under 35 U.S.C. § 112

Turning first to the rejection of claim 51 under 35 U.S.C. § 112, ¶ 2 as being indefinite, the Applicants respectfully traverse this rejection. Claim 51 has been canceled by the present amendment without prejudice. Accordingly, the rejection no longer applies to the present application.

### Rejections under 35 U.S.C. § 103

MPEP § 2142 states that in order for a *prima facie* case of obviousness to be established, three basic criteria must be met, one of which is that the reference or combination of references must teach or suggest all of the claim limitations. MPEP § 2143.03 states that to establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

As an initial matter, the Applicants submit that *Owen* is not prior art to the pending claims of the present application. *Owen* was published in the United Kingdom on June 17, 1992. The pending claims of the present application are entitled to an effective filing date prior to June 17, 1992. For example and without limitation, the present application claims priority to and benefit from patent application PCT/US92/03982, filed on May 13, 1992. As a non-limiting example of support in such application for the present claims, the Applicants refer the Examiner to FIGs. 28-30 of such application and the corresponding textual discussion.

Since *Owen* does not appear to be statutory prior art for the presently pending claims, the Applicants submit that the Office Action has not set forth a *prima facie* case of obviousness that meets the mandates of MPEP § 2142. Accordingly, the Applicants respectfully submit that claims 38-46, 48-49 and 52 are allowable over *Owen*, singly or in combination with any other reference, including *Hoff*.

Though the Applicants do not believe that *Owen* is statutory prior art for the presently pending claims, in the spirit of advancing prosecution of the presently pending claims, the Applicants will address particular points regarding *Hoff* and *Owen*.

Independent claim 38 states, “one or more base stations each having a radio frequency transceiver and each base station transmitting a pending message list at each of selected time intervals; and a plurality of roaming terminals each having a radio frequency transceiver, the roaming terminals being selectively communicative with one or more base stations and each of the roaming terminals selectively deactivating the terminal's radio frequency transceiver through a plurality of the selected time intervals and synchronizing the activation of the terminal's radio frequency transceiver to receive the pending message list following the plurality of the selected time intervals”.

The Office Action, in § 6, states that *Hoff* teaches “one or more base stations each having a radio frequency transceiver (*Hoff* see especially figure 2A) and each base station transmitting a pending message list at each of selected time intervals (*Hoff* see especially column 4, line 58 – column 5, line 25, column 17, lines 15-35, column 22, lines 40-65)”. The Applicants respectfully disagree with this characterization of *Hoff*.

For example and without limitation, *Hoff*, at col. 4 line 50 to col. 5 line 25, discusses pagers being assigned periodic timeslots for messages destined for the pagers. A periodic time frame is made of sub-frames, which in turn are made of timeslots. A pager receiver will receive messages in the pager receiver's assigned timeslot. Also for example, *Hoff*, at col. 17 lines 15-35, discusses messages being transmitted to a pager in the pager's assigned timeslot so that the receiver portion of the pager need only be active during the pager's assigned timeslot. Further for example, *Hoff*, at col. 22 lines 40-65, discusses a power-limited pager receiver turning on during its assigned timeslot to determine if a packet sent from a base station in the timeslot is addressed to the receiver. *Hoff* does not mention the transmission of a pending message list nor

reception of such a pending message list by a roaming terminal. At most, *Hoff* discusses a base station merely transmitting its messages rather than transmitting a list of messages that are pending, and a pager receiving a message rather than a list of messages that are pending.

Additionally, *Hoff* discusses a paging network with roaming pagers that receive paging messages from the paging network. Applicants were unable to find mention in *Hoff* of any of the roaming pagers having transceivers.

On page 4, the Office Action admits that *Hoff* lacks a teaching of the roaming terminals selectively deactivating the terminal's radio frequency transceiver through a plurality of the selected time intervals (*i.e.*, selected time intervals, at each of which is transmitted a pending message list) and synchronizing the activation of the terminal's radio frequency transceiver to receive following the plurality of the selected time intervals. The Office Action attempts to utilize the teachings of *Owen* to fill in this gap in *Hoff*'s teachings. In particular, the Office Action states that *Owen* teaches a system in which roaming terminals selectively deactivate the terminal's radio frequency transceiver through a plurality of the selected time intervals and synchronize the activation of the terminal's radio frequency transceiver to receive a beacon following the plurality of the selected time intervals.

*Owen*, for example in pages 3-4, presents a progressive lengthening of a station's scanning procedure to save power when a station is out of range of the network. The Applicants submit that integrating the *Owen* progressive lengthening technique into the *Hoff* system would result in significantly undesirable system behavior. For example, the *Hoff* system is a paging system in which the paging network cycles through paging messages to be transmitted in a periodic timeframe. A pager must wake to receive messages sent in a periodic timeslot assigned to the pager. If a pager is not awake during the pager's timeslot to receive its paging message, the message is lost. If the *Hoff* system were modified to include deactivating a pager's receiver "through a plurality of the selected time intervals" and synchronizing activation of the pager's receiver "to receive the pending message list following the plurality of the selected time intervals", in a manner generally analogous to that stated in claim 38, the *Hoff* system would lose an unacceptably large number of paging messages.

For at least this additional reason, the Applicants submit that claim 38 is allowable over *Hoff* and *Owen*, as are all claims depending therefrom, including claims 39-41. The Applicants

also submit that each of claims 39-41 is independently allowable.

Turning next to independent claim 42, such claim states, "one or more base stations each having a radio frequency transceiver and each base station transmitting a pending message list at each of selected time intervals; and a plurality of roaming terminals each having a radio frequency transceiver, the roaming terminals being selectively communicative with one or more base stations and each of the roaming terminals selectively deactivating the terminal's radio frequency transceiver through at least one of the selected time intervals and synchronizing the activation of the terminal's radio frequency transceiver to receive the pending message list following at least one of the selected time intervals."

Claim 42 shares various characteristics with claim 38, which was discussed above. Also, various Office Action statements regarding claim 42 are generally similar to the statements made with regard to claim 38. Accordingly, for at least reasons generally analogous to those discussed above with respect to claim 38, the Applicants submit that claim 42 is allowable over *Hoff* and *Owen*, as are all claims depending therefrom, including claims 43-45. The Applicants also submit that each of claims 43-45 is independently allowable.

Turning next to independent claim 46, such claim states, "For use in a radio frequency data communication system having one or more base stations each transmitting a pending message list at each of selected time intervals, a roaming terminal operable in a sleep mode comprising: a radio frequency transceiver; and a processor selectively deactivating the transceiver through a plurality of the selected time intervals to operate the transceiver in a sleep mode and synchronizing the activation of the transceiver to receive a pending message list following the sleep mode."

Claim 46 shares various characteristics with claim 38, which was discussed above. Also, various Office Action statements regarding claim 46 are generally similar to the statements made with regard to claim 38. Accordingly, for at least reasons generally analogous to those discussed above with respect to claim 38, the Applicants submit that claim 46 is allowable over *Hoff* and *Owen*.

Turning next to independent claim 48, such claim states, "transmitting via radio frequency a pending message list at each of selected time intervals from a base station; deactivating the roaming terminal's transceiver through a plurality of the selected time intervals

in a sleep mode; and synchronizing the activation of the terminal's radio frequency transceiver to receive the pending message list following the sleep mode.”

Claim 48 shares various characteristics with claim 38, which was discussed above. Also, various Office Action statements regarding claim 48 are generally similar to the statements made with regard to claim 38. Accordingly, for at least reasons generally analogous to those discussed above with respect to claim 38, the Applicants submit that claim 48 is allowable over *Hoff* and *Owen*, as are all claims depending therefrom, including claim 49. The Applicants also submit that claim 49 is independently allowable.

Turning next to independent claim 52, such claim states, “deactivating the terminal's transceiver in a sleep mode through a plurality of selected time intervals during which a pending message list is transmitted; synchronizing the activation of the roaming terminal's radio frequency transceiver to receive a message following the sleep mode; receiving a pending message list; and determining from the pending message list whether a message for the roaming terminal is awaiting delivery.”

Claim 52 shares various characteristics with claim 38, which was discussed above. Also, various Office Action statements regarding claim 52 are generally similar to the statements made with regard to claim 38. Accordingly, for at least reasons generally analogous to those discussed above with respect to claim 38, the Applicants submit that claim 52 is allowable over *Hoff* and *Owen*.

Additionally, the Applicants submit that neither *Hoff* nor *Owen* show a method for operating a terminal comprising “receiving a pending message list” and “determining from the pending message list whether a message for the roaming terminal is awaiting delivery.” For at least this additional reason, the Applicants submit that claim 52 is allowable over *Hoff* and *Owen*.

#### **New Claims**

The present amendment adds new claims 56-66. The Applicants submit that each of new claims 56-66 is allowable for at least the following reasons.

New claims 56-58 each depend, directly or indirectly, from independent claim 46 and share various characteristics with existing dependent claims 39-41. Accordingly, the Applicants submit that each of new claims 56-58 is allowable for at least reasons stated previously with regard to independent claim 46. The Applicants also submit that each of new claims 56-58 is

independently allowable.

New independent claim 59 shares many characteristics with claim 46. Accordingly, the Applicants submit that new claim 59 is allowable for at least reasons stated previously with regard to claim 46.

New claims 60-62 each depend, directly or indirectly, from independent claim 59 and share various characteristics with dependent claims 39-41. Accordingly, the Applicants submit that each of new claims 60-62 is allowable for at least reasons stated previously with regard to independent claim 59. The Applicants also submit that each of new claims 60-62 is independently allowable.

New claim 63 is an apparatus claim that generally corresponds to method claim 52. Accordingly, the Applicants submit that new claim 63 is allowable for at least reasons similar to reasons stated previously with regard to claim 52.

New claims 64-66 each depend, directly or indirectly, from independent claim 63 and share various characteristics with dependent claims 39-41. Accordingly, the Applicants submit that each of new claims 64-66 is allowable for at least reasons stated previously with regard to independent claim 63. The Applicants also submit that each of new claims 64-66 is independently allowable.

Lastly, because of the similarities between the new claims and current claims, the Applicants submit that the new claims should not require the Examiner to perform additional searching.

#### **Final Matters**

The Office Action makes various statements about claims 38-46, 48-49 and 51-52 and the *Hoff* and *Owen* references that are now moot in view of the previous remarks. Accordingly, the present response will not address all of such statements at the present time. The Applicants neither confirm nor deny such statements and expressly reserve the right to challenge such statements in the future should the need arise, for example, if any of such statements should appear in a future claim rejection.

**Summary**

In summary, for at least the aforementioned reasons, the Applicants submit that all pending claims are in condition for allowance. Accordingly, the Applicants courteously solicit a Notice of Allowability with respect to all pending claims. To advance prosecution of the present application in an efficient manner, if the Examiner disagrees with the Applicants' positions stated above, or would like to discuss other aspects of the present application, the Applicants invite the Examiner to contact the Applicants' representative via telephone at the number below.

The Commissioner is hereby authorized to charge additional fees or credit overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Date: March 19, 2007

Respectfully submitted,

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